

**Navy Advancement Center**

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# **Advancement Handbook for Aviation Structural Mechanic (Safety Equipment) (AME)**

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## PREFACE

The purpose of the Advancement Handbook is to help you focus your preparation for Navy-wide advancement-in-rating examinations. The bibliographies (BIBs) together with this handbook form a comprehensive examination study package. Since this handbook provides skill and knowledge components for each paygrade of the Aviation Structural Mechanic (Safety Equipment) (AME) rating, it helps you concentrate your study on those areas that may be tested. This feature will help you get the most out of your study time.

Each page in Parts 1 through 4 of this Advancement Handbook presents general skill areas, specific skill areas, the knowledge factors associated with each skill area, the pertinent references that address each skill, and the subject areas that may be covered on the examination. The skill statements describe the skills you are expected to perform for each paygrade. The skill statements are cumulative; that is, you are responsible for the skills for the paygrade you are competing for, your present paygrade, and all paygrades below.

Although this handbook is very comprehensive, it cannot cover all the tasks performed in the rating. As a result, the advancement examinations may contain questions more detailed than described in the “*Exam Expectations*” section of the skill areas.

Remember that advancement competition is keen, so your keys to advancement include not only comprehensive advancement examination study but also sustained superior performance.

Prepared by  
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## Part 1

### Advancement Handbook for AME3

## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Mechanical Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain heat exchanger fans
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to troubleshoot heat exchanger fans</li> <li>• Procedures used to clean and inspect heat exchanger fans</li> <li>• Procedures used to remove and replace heat exchanger fans</li> <li>• Procedures used to perform functional checks on heat exchanger fans</li> <li>• Procedures used to perform functional checks on components of air conditioning systems</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Principles of Operation Environmental Control System F-14 (NAVAIR 01-F14AAA-2-2-2)</li> <li>• Technical Manual Utility Systems, P-3 (NAVAIR 01-75PAA-2-2.4)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	<p>You can expect questions about procedures used to troubleshoot, clean, inspect, remove, and replace heat exchanger fans. You can also expect questions about performing functional checks on heat exchanger fans and components of air conditioning systems. Questions may be of general in nature or specific to a type of platform.</p>

## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Mechanical Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain components of air conditioning systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to perform functional checks on components of air conditioning systems</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Principles of Operation, Testing, and Troubleshooting Environmental Control Systems, E-6A (A1-E6AAA-410-100)</li> <li>• Technical Manual Principles of Operation, Testing, and Troubleshooting Utility Systems, E-6A (A1-E6AAA-490-100)</li> <li>• Technical Manual Organizational Maintenance, Environmental Control Systems EA-6B (NAVAIR 01-85ADC-2-6)</li> <li>• Technical Manual Principles of Operations Environmental Control System S-3 (NAVAIR 01-S3AAA-2-2.7)</li> <li>• Technical Manual Principles of Operations Environmental Control System F/A-18 (A1-F18AC-410-100)</li> <li>• Technical Manual Maintenance Environmental Control Systems F14 (NAVAIR 01-F14AAA-2-4-2)</li> <li>• Technical Manual Principles of Operation Environmental Control System F-14 (NAVAIR 01-F14AAA-2-2-2)</li> <li>• Technical Manual Utility Systems, P-3 (NAVAIR 01-75PAA-2-2.4)</li> <li>• Technical Manual Organizational Maintenance, Environmental Control and Utility Systems E-2C (NAVAIR 01-E2AAA-2-12)</li> <li>• All applicable MRCs/PMICs on specific type of platforms</li> </ul>

<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about the procedures used to perform functional checks on components of air conditioning systems. Questions may be of general nature or specific to a type of platform.</p>
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## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Mechanical Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain bleed air ducts
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to clean and inspect bleed air ducts</li> <li>• Procedures used to remove and replace bleed air ducts</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Principles of Operation, Testing, and Troubleshooting Environmental Control Systems, E-6A (A1-E6AAA-410-100)</li> <li>• Technical Manual Organizational Maintenance, Environmental Control Systems EA-6B (NAVAIR 01-85ADC-2-6)</li> <li>• Technical Manual Principles of Operations Environmental Control System S-3 (NAVAIR 01-S3AAA-2-2.7)</li> <li>• Technical Manual Principles of Operations Environmental Control System F/A-18 (A1-F18AC-410-100)</li> <li>• Technical Manual Maintenance Environmental Control Systems F14 (NAVAIR 01-F14AAA-2-4-2)</li> <li>• Technical Manual Principles of Operation Environmental Control System F-14 (NAVAIR 01-F14AAA-2-2-2)</li> <li>• Technical Manual Utility Systems, P-3 (NAVAIR 01-75PAA-2-2.4)</li> <li>• Technical Manual Organizational Maintenance, Environmental Control and Utility Systems E-2C (NAVAIR 01-E2AAA-2-12)</li> </ul>

<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about the procedures used to clean, inspect, remove, and replace bleed air ducts. Question may be of general nature or specific to a type of platform.</p>
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## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Mechanical Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain engine bleed air pressure regulation valves and secondary pressure valves
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to troubleshoot engine bleed air pressure regulation valves and secondary pressure valves</li> <li>• Procedures used to clean, lubricate, and inspect engine bleed air pressure regulation valves and secondary pressure valves</li> <li>• Procedures used to perform functional checks on engine bleed air pressure regulation valves and secondary pressure valves</li> <li>• Procedures used to perform functional checks on components of air conditioning systems</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Principles of Operation, Testing, and Troubleshooting Environmental Control Systems, E-6A (A1-E6AAA-410-100)</li> <li>• Technical Manual Principles of Operation, Testing, and Troubleshooting Utility Systems, E-6A (A1-E6AAA-490-100)</li> <li>• Technical Manual Organizational Maintenance, Environmental Control Systems EA-6B (NAVAIR 01-85ADC-2-6)</li> <li>• Technical Manual Principles of Operations Environmental Control System S-3 (NAVAIR 01-S3AAA-2-2.7)</li> <li>• Technical Manual Principles of Operations Environmental Control System F/A-18 (A1-F18AC-410-100)</li> <li>• Technical Manual Maintenance Environmental Control Systems F14 (NAVAIR 01-F14AAA-2-4-2)</li> </ul>

	<ul style="list-style-type: none"> <li>• Technical Manual Principles of Operation Environmental Control System F-14 (NAVAIR 01-F14AAA-2-2-2)</li> <li>• Technical Manual Utility Systems, P-3 (NAVAIR 01-75PAA-2-2.4)</li> <li>• Technical Manual Organizational Maintenance, Environmental Control and Utility Systems E-2C (NAVAIR 01-E2AAA-2-12)</li> <li>• Applicable Power Plants MIMs on Specific Platforms</li> </ul>
<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions on procedures used to troubleshoot, clean, lubricate, and inspect engine bleed air pressure regulation valves and secondary pressure valves. You can also expect questions about performing functional checks on engine bleed air pressure regulation valves, secondary pressure valves, and components of air conditioning systems. Questions may be of general nature or specific to a type of platform.</p>

## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Mechanical Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain primary and secondary bleed air overpressure switches
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to troubleshoot primary and secondary bleed air overpressure switches</li> <li>• Procedures used to clean and inspect primary and secondary bleed air overpressure switches</li> <li>• Procedures used to remove and replace primary and secondary bleed air overpressure switches</li> <li>• Procedures used to perform functional checks on primary and secondary bleed air overpressure switches</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Principles of Operation, Testing, and Troubleshooting Environmental Control Systems, E-6A (A1-E6AAA-410-100)</li> <li>• Technical Manual Principles of Operations Environmental Control System S-3 (NAVAIR 01-S3AAA-2-2.7)</li> <li>• Technical Manual Principles of Operations Environmental Control System F/A-18 (A1-F18AC-410-100)</li> <li>• Technical Manual Maintenance Environmental Control Systems F14 (NAVAIR 01-F14AAA-2-4-2)</li> <li>• Technical Manual Principles of Operation Environmental Control System F-14 (NAVAIR 01-F14AAA-2-2-2)</li> <li>• Technical Manual Organizational Maintenance, Environmental Control and Utility Systems E-2C (NAVAIR 01-E2AAA-2-12)</li> </ul>

<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can also expect questions on procedures used to troubleshoot, clean, inspect, remove, and replace primary and secondary bleed air overpressure switches. You can also expect questions about procedures used to perform functional checks on primary and secondary bleed air overpressure switches. Questions may be of general nature or specific to a type of platform.</p>
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## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Mechanical Maintenance</b>
<i>A skill</i> you are expected to perform from the General Skill Area above:	Maintain air isolation valves and air isolation overpressure switches
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to troubleshoot air isolation valves and air isolation overpressure switches</li> <li>• Procedures used to clean, lubricate and inspect air isolation valves and air isolation overpressure switches</li> <li>• Procedures used to remove and replace air isolation valves and air isolation overpressure switches</li> <li>• Procedures used to perform functional checks on air isolation valves</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Principles of Operation, Testing, and Troubleshooting Environmental Control Systems, E-6A (A1-E6AAA-410-100)</li> <li>• Technical Manual Principles of Operations Environmental Control System F/A-18 (A1-F18AC-410-100)</li> <li>• Technical Manual Utility Systems, P-3 (NAVAIR 01-75PAA-2-2.4)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about procedures used to troubleshoot, clean, inspect, remove, and replace air isolation valves and air isolation overpressure switches. You can also expect questions on procedures used to perform functional checks on air isolation valves and air isolation overpressure switches. Questions may be of general nature or specific to a type of platform.

## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Mechanical Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain pneumatic systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to troubleshoot pneumatic systems</li> <li>• Procedures used to clean, lubricate and inspect pneumatic systems</li> <li>• Procedures used to remove and replace pneumatic actuators</li> <li>• Procedures used to remove and replace pneumatic system storage bottles</li> <li>• Procedures used to perform functional checks on pneumatic system storage bottles</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Principles of Operations, Testing, and Troubleshooting Utility Systems, E-6A (A1-E6AAA-490-100)</li> <li>• Technical Manual Principles of Operation, Testing, and Troubleshooting Environmental Control Systems, E-6A (A1-E6AAA-410-100)</li> <li>• Technical Manual Organizational Maintenance, EA-6B, Escape and Survival Systems (NAVAIR 01-85ADC-2-5)</li> <li>• Technical Manual Organizational Maintenance, F-14, Principles of Operation Environmental Control Systems (NAVAIR 01-F14AAA-2-2-2)</li> <li>• Any applicable MIMs pertaining to Pneumatic Systems</li> </ul>



<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions on the procedures used to troubleshoot, clean, lubricate and inspect pneumatic systems. You can also expect questions on removing and replacing pneumatic actuators and system storage bottles and performing functional checks on pneumatic system storage bottles. Questions may be of general nature or specific to a type of platform.</p>
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## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Mechanical Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain radar/missile liquid cooling systems and related components
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to troubleshoot radar missile liquid cooling systems and related components</li> <li>• Procedures used to remove and replace radar/missile cooling systems and related components</li> <li>• Procedures used to clean, lubricate, and inspect radar liquid/missile cooling systems and related components</li> <li>• Procedures used to perform functional checks on the radar/missile liquid cooling systems and related components</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Principles of Operations Environmental Control System F/A-18 (A1-F18AC-410-100)</li> <li>• Technical Manual Principles of Operation Environmental Control System F-14 (NAVAIR 01-F14AAA-2-2-2)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on procedures used to troubleshoot, clean, lubricate, inspect, remove, and replace radar missile liquid cooling system and related components. You can also expect questions on performing functional checks on radar/missile liquid cooling systems and related components. Questions may be of general nature or specific to a type of platform.

## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Mechanical Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain waveguide filters and air desiccators
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to troubleshoot waveguide filters and air desiccators</li> <li>• Procedures used to remove and replace waveguide filters and desiccators</li> <li>• Procedures used to clean and inspect air desiccators</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Principles of Operations Environmental Control System F/A-18 (A1-F18AC-410-100)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on troubleshooting, removing, replacing, cleaning, and inspecting waveguide filters and air desiccators. Questions may be of general nature or specific to a type of platform.

## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Mechanical Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain shutoff valves
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to troubleshoot shutoff valves</li> <li>• Procedures used to clean, lubricate, and inspect shutoff valves</li> <li>• Procedures used to remove and replace shutoff valves</li> <li>• Procedures used to perform functional checks on shutoff valves</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Principles of Operation, Testing, and Troubleshooting Environmental Control Systems, E-6A (A1-E6AAA-410-100)</li> <li>• Technical Manual Principles of Operation, Testing, and Troubleshooting Utility Systems, E-6A (A1-E6AAA-490-100)</li> <li>• Technical Manual Organizational Maintenance, Environmental Control Systems EA-6B (NAVAIR 01-85ADC-2-6)</li> <li>• Technical Manual Principles of Operations Environmental Control System S-3 (NAVAIR 01-S3AAA-2-2.7)</li> <li>• Technical Manual Principles of Operations Environmental Control System F/A-18 (A1-F18AC-410-100)</li> <li>• Technical Manual Maintenance Environmental Control Systems F14 (NAVAIR 01-F14AAA-2-4-2)</li> <li>• Technical Manual Principles of Operation Environmental Control System F-14 (NAVAIR 01-F14AAA-2-2-2)</li> <li>• Technical Manual Utility Systems, P-3 (NAVAIR 01-75PAA-2-2.4)</li> </ul>

	<ul style="list-style-type: none"> <li>• Technical Manual Organizational Maintenance, Environmental Control and Utility E-2C (NAVAIR 01-E2AAA-2-12)</li> <li>• Applicable platform MRCs</li> </ul>
<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions on procedures used to troubleshoot, clean, inspect, remove, and replace shutoff valves. You can also expect questions on performing functional checks on shutoff valves. Questions may be of general nature or specific to a type of platform.</p>

## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Mechanical Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain primary and secondary heat exchangers
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to troubleshoot primary and secondary heat exchangers</li> <li>• Procedures used to clean and inspect primary and secondary heat exchangers</li> <li>• Procedures used to remove and replace primary and secondary heat exchangers and related components</li> <li>• Procedures used to perform functional checks on primary/secondary heat exchangers and related components</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Principles of Operation, Testing, and Troubleshooting Environmental Control Systems, E-6A (A1-E6AAA-410-100)</li> <li>• Technical Manual Principles of Operation, Testing, and Troubleshooting Utility Systems, E-6A (A1-E6AAA-490-100)</li> <li>• Technical Manual Organizational Maintenance, Environmental Control Systems EA-6B (NAVAIR 01-85ADC-2-6)</li> <li>• Technical Manual Principles of Operations Environmental Control System S-3 (NAVAIR 01-S3AAA-2-2.7)</li> <li>• Technical Manual Principles of Operations Environmental Control System F/A-18 (A1-F18AC-410-100)</li> <li>• Technical Manual Maintenance Environmental Control Systems F14 (NAVAIR 01-F14AAA-2-4-2)</li> </ul>

	<ul style="list-style-type: none"> <li>• Technical Manual Principles of Operation Environmental Control System F-14 (NAVAIR 01-F14AAA-2-2-2)</li> <li>• Technical Manual Utility Systems, P-3 (NAVAIR 01-75PAA-2-2.4)</li> </ul>
<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about procedures used to troubleshoot, remove, replace, clean, and inspect heat exchangers and their related components. You can also expect questions about procedures used to perform functional checks on primary/secondary heat exchangers and related components. Questions may be of general nature or specific to a type of platform.</p>

## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Mechanical Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain primary and secondary ejector valves
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to troubleshoot primary/secondary ejector valves</li> <li>• Procedures used to clean, lubricate and inspect primary/secondary ejector valves</li> <li>• Procedures used to remove and replace primary/secondary ejector valves</li> <li>• Procedures used to perform functional checks on primary/secondary ejector valves</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Principles of Operations Environmental Control System F/A-18 (A1-F18AC-410-100)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about procedures used to troubleshoot, clean, inspect, remove, and replace primary/secondary ejector valves. You can also expect questions about procedures used to perform functional checks on primary/secondary ejector valves. Questions may be of general nature or specific to a type of platform.



## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Mechanical Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain cabin pressure regulator valves and related components
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to troubleshoot cabin pressurization systems and related components</li> <li>• Procedures used to clean and inspect pressurization system and related components</li> <li>• Procedures used to remove and replace pressure regulator and related components</li> <li>• Procedures used to perform functional checks on pressurization system and related components</li> <li>• Procedures used to perform functional checks on components of air conditioning systems</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Principles of Operation, Testing, and Troubleshooting Environmental Control Systems, E-6A (A1-E6AAA-410-100)</li> <li>• Technical Manual Principles of Operation, Testing, and Troubleshooting Utility Systems, E-6A (A1-E6AAA-490-100)</li> <li>• Technical Manual Organizational Maintenance, Environmental Control Systems EA-6B (NAVAIR 01-85ADC-2-6)</li> <li>• Technical Manual Principles of Operations Environmental Control System S-3 (NAVAIR 01-S3AAA-2-2.7)</li> <li>• Technical Manual Principles of Operations Environmental Control System F/A-18 (A1-F18AC-410-100)</li> <li>• Technical Manual Maintenance Environmental Control Systems F14 (NAVAIR 01-F14AAA-2-4-2)</li> </ul>

	<ul style="list-style-type: none"> <li>• Technical Manual Principles of Operation Environmental Control System F-14 (NAVAIR 01-F14AAA-2-2-2)</li> <li>• Technical Manual Utility Systems, P-3 (NAVAIR 01-75PAA-2-2.4)</li> <li>• Technical Manual Organizational Maintenance, Environmental Control and Utility Systems E-2C (NAVAIR 01-E2AAA-2-12)</li> </ul>
<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about procedures used to troubleshoot, clean, inspect, remove, and replace cabin pressurization systems and related components. You can also expect questions about procedures used to perform functional checks on pressurization system and related components and components of air conditioning systems. Questions may be of general nature or specific to a type of platform.</p>

## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Mechanical Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain avionics ram air servos and ram air valves
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to troubleshoot avionics ram air servos and ram air valves</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Principles of Operation, Testing, and Troubleshooting Environmental Control Systems, E-6A (A1-E6AAA-410-100)</li> <li>• Technical Manual Organizational Maintenance, Environmental Control Systems EA-6B (NAVAIR 01-85ADC-2-6)</li> <li>• Technical Manual Principles of Operations Environmental Control System S-3 (NAVAIR 01-S3AAA-2-2.7)</li> <li>• Technical Manual Principles of Operations Environmental Control System F/A-18 (A1-F18AC-410-100)</li> <li>• Technical Manual Maintenance Environmental Control Systems F14 (NAVAIR 01-F14AAA-2-4-2)</li> <li>• Technical Manual Principles of Operation Environmental Control System F-14 (NAVAIR 01-F14AAA-2-2-2)</li> <li>• Technical Manual Utility Systems, P-3 (NAVAIR 01-75PAA-2-2.4)</li> <li>• Technical Manual Organizational Maintenance, Environmental Control and Utility Systems E-2C (NAVAIR 01-E2AAA-2-12)</li> </ul>

<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about procedures used to troubleshoot avionics ram air servos and ram air valves. Questions may be of general nature or specific to a type of platform.</p>
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## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Mechanical Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain air-conditioning turbine and protective temperature sensors
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to troubleshoot air-conditioning turbine and protective temperature sensors</li> <li>• Procedures used to clean, lubricate and inspect air-conditioning turbine and protective temperature sensors (clean and inspect only)</li> <li>• Procedures used to remove and replace air-conditioning turbine and protective temperature sensors</li> <li>• Procedures used to perform functional checks on air-conditioning turbine and protective temperature sensors</li> <li>• Procedures used to perform functional checks on components of air-conditioning systems</li> <li>• Procedures used to troubleshoot environmental control systems (ECS)</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Principles of Operation, Testing, and Troubleshooting Environmental Control Systems, E-6A (A1-E6AAA-410-100)</li> <li>• Technical Manual Organizational Maintenance, Environmental Control Systems EA-6B (NAVAIR 01-85ADC-2-6)</li> <li>• Technical Manual Principles of Operations Environmental Control System S-3 (NAVAIR 01-S3AAA-2-2.7)</li> <li>• Technical Manual Principles of Operations Environmental Control System F/A-18 (A1-F18AC-410-100)</li> <li>• Technical Manual Maintenance Environmental Control Systems F14 (NAVAIR 01-F14AAA-2-4-2)</li> </ul>

	<ul style="list-style-type: none"> <li>• Technical Manual Principles of Operation Environmental Control System F-14 (NAVAIR 01-F14AAA-2-2-2)</li> <li>• Technical Manual Utility Systems, P-3 (NAVAIR 01-75PAA-2-2.4)</li> <li>• Technical Manual Organizational Environmental Control and Utility Systems E-2C (NAVAIR 01-E2AAA-2-12)</li> </ul>
<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about procedures used to troubleshoot, clean, inspect, remove, and replace air-conditioning turbine and protective temperature sensors. Questions may be of general nature or specific to a type of platform.</p>

## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Mechanical Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain air-conditioning water separators
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to troubleshoot water separator system and related components</li> <li>• Procedures used to clean and inspect water separator systems</li> <li>• Procedures used to remove and replace water separator components</li> <li>• Procedures used to perform functional checks on water separator system</li> <li>• Procedures used to perform functional checks on components of air-conditioning systems</li> <li>• Procedures used to troubleshoot environmental control systems</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Principles of Operation, Testing, and Troubleshooting Environmental Control Systems, E-6A (A1-E6AAA-410-100)</li> <li>• Technical Manual Organizational Maintenance, Environmental Control Systems EA-6B (NAVAIR 01-85ADC-2-6)</li> <li>• Technical Manual Principles of Operations Environmental Control System S-3 (NAVAIR 01-S3AAA-2-2.7)</li> <li>• Technical Manual Principles of Operations Environmental Control System F/A-18 (A1-F18AC-410-100)</li> <li>• Technical Manual Maintenance Environmental Control Systems F14 (NAVAIR 01-F14AAA-2-4-2)</li> <li>• Technical Manual Principles of Operation Environmental Control System F-14 (NAVAIR 01-F14AAA-2-2-2)</li> </ul>

	<ul style="list-style-type: none"> <li>• Technical Manual Utility Systems, P-3 (NAVAIR 01-75PAA-2-2.4)</li> <li>• Technical Manual Organizational Maintenance, Environmental Control and Utility Systems E-2C (NAVAIR 01-E2AAA-2-12)</li> </ul>
<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about procedures used to troubleshoot, remove, replace, clean, and inspect air-conditioning water separators. Questions may be of general nature or specific to a type of platform.</p>



## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Mechanical Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain environmental control systems (ECS)
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to troubleshoot environmental control systems</li> <li>• Procedures used to clean and inspect environmental control systems</li> <li>• Procedures used to remove and replace environmental control system components</li> <li>• Procedures used to perform functional checks on components of air-conditioning systems</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Principles of Operation, Testing, and Troubleshooting Environmental Control Systems, E-6A (A1-E6AAA-410-100)</li> <li>• Technical Manual Principles of Operation, Testing, and Troubleshooting Utility Systems, E-6A (A1-E6AAA-490-100)</li> <li>• Technical Manual Organizational Maintenance, Environmental Control Systems EA-6B (NAVAIR 01-85ADC-2-6)</li> <li>• Technical Manual Principles of Operations Environmental Control System S-3 (NAVAIR 01-S3AAA-2-2.7)</li> <li>• Technical Manual Principles of Operations Environmental Control System F/A-18 (A1-F18AC-410-100)</li> <li>• Technical Manual Maintenance Environmental Control Systems F14 (NAVAIR 01-F14AAA-2-4-2)</li> <li>• Technical Manual Principles of Operation Environmental Control System F-14 (NAVAIR 01-F14AAA-2-2-2)</li> </ul>

	<ul style="list-style-type: none"> <li>• Technical Manual Utility Systems, P-3 (NAVAIR 01-75PAA-2-2.4)</li> <li>• Technical Manual Organizational Maintenance, Environmental Control and Utility Systems E-2C (NAVAIR 01-E2AAA-1-12)</li> </ul>
<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about procedures used to troubleshoot, remove, replace, clean, and inspect environmental control systems. You can also expect questions about procedures used to perform functional checks on components of air-conditioning systems. Questions may be of general nature or specific to a type of platform.</p>

## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Mechanical Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain anti-ice add heat valves
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to troubleshoot anti-ice add heat valves</li> <li>• Procedures used to clean, lubricate, and inspect anti-ice add heat valves</li> <li>• Procedures used to remove and replace anti-ice add heat valves</li> <li>• Procedures used to perform functional checks on anti-ice add heat valves</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Principles of Operations Environmental Control System F/A-18 (A1-F18AC-410-100)</li> <li>• Technical Manual Organizational Maintenance, Environmental Control and Utility Systems E-2C (NAVAIR 01-E2AAA-2-12)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about procedures used to troubleshoot, clean, inspect, remove, and replace anti-ice add heat valves. Questions may be of general nature or specific to a type of platform.

## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Mechanical Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain air multiplier packages
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to troubleshoot air multiplier packages</li> <li>• Procedures used to clean, lubricate, and inspect air multiplier packages</li> <li>• Procedures used to remove and replace air multiplier packages</li> <li>• Procedures used to perform functional checks on air multiplier packages</li> <li>• Procedures used to perform functional checks on components of air conditioning systems</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Utility Systems, P-3 (NAVAIR 01-75PAA-2-2.4)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about procedures used to troubleshoot, clean, inspect, lubricate, remove, and replace air multiplier packages. You can also expect questions about performing functional checks on air multiplier packages and air conditioning systems. Questions may be of general nature or specific to a type of platform.

## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Mechanical Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain air temperature controllers
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to troubleshoot air temperature controllers</li> <li>• Procedures used to clean and inspect air temperature controllers</li> <li>• Procedures used to remove and replace air temperature controllers</li> <li>• Procedures used to perform functional checks on air temperature controllers</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Principles of Operation, Testing, and Troubleshooting Environmental Control Systems, E-6A (A1-E6AAA-410-100)</li> <li>• Technical Manual Organizational Maintenance, Environmental Control Systems EA-6B (NAVAIR 01-85ADC-2-6)</li> <li>• Technical Manual Principles of Operations Environmental Control System S-3 (NAVAIR 01-S3AAA-2-2.7)</li> <li>• Technical Manual Principles of Operations Environmental Control System F/A-18 (A1-F18AC-410-100)</li> <li>• Technical Manual Maintenance Environmental Control Systems F14 (NAVAIR 01-F14AAA-2-4-2)</li> <li>• Technical Manual Principles of Operation Environmental Control System F-14 (NAVAIR 01-F14AAA-2-2-2)</li> <li>• Technical Manual Utility Systems, P-3 (NAVAIR 01-75PAA-2-2.4)</li> </ul>

	<ul style="list-style-type: none"> <li>• Technical Manual Organizational Maintenance, Environmental Control and Utility Systems E-2C (NAVAIR 01-E2AAA-2-12)</li> </ul>
<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about procedures used to troubleshoot, remove, replace, clean, and inspect air temperature controllers. You can also expect questions about procedures used to perform functional checks on air temperature controllers. Questions may be of general nature or specific to a type of platform.</p>

## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Mechanical Maintenance</b>
<i>A skill</i> you are expected to perform from the General Skill Area above:	Maintain water extractors
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to troubleshoot water extractors and related components</li> <li>• Procedures used to clean and inspect water extractors and related components</li> <li>• Procedures used to remove and replace water extractors and related components</li> <li>• Procedures used to perform functional checks on water extractors and related components</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Principles of Operations Environmental Control System F/A-18 (A1-F18AC-410-100)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on procedures used to troubleshoot, clean, inspect, remove, and replace water extractors and related components. You can also expect questions about procedures used to perform functional checks on water extractors and related components. Questions may be general in nature or specific to a type of platform.

## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Mechanical Maintenance</b>
<i>A skill</i> you are expected to perform from the General Skill Area above:	Maintain deicing systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to troubleshoot deicing systems</li> <li>• Procedures used to clean and inspect components of deicing systems</li> <li>• Procedures used to remove and replace deicing components</li> <li>• Procedures used to perform functional checks on deicing systems</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Principles of Operations Environmental Control System S-3 (NAVAIR 01-S3AAA-2-2.7)</li> <li>• Technical Manual Organizational Maintenance, Environmental Control and Utility Systems E-2C (NAVAIR 01-E2AAA-2-12)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on procedures used to troubleshoot, remove, replace, clean, and inspect deicing systems. You can also expect questions on procedures used to perform functional checks on deicing systems. Questions may be general in nature or specific to a type of platform.



## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Mechanical Maintenance</b>
<i>A skill</i> you are expected to perform from the General Skill Area above:	Maintain defog system
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to troubleshoot components of defog system</li> <li>• Procedures used to clean and inspect components of defog systems</li> <li>• Procedures used to remove and replace components of defog system</li> <li>• Procedures used to perform functional checks on defog systems</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Organizational Maintenance, Environmental Control Systems EA-6B (NAVAIR 01-85ADC-2-6)</li> <li>• Technical Manual Principles of Operations Environmental Control System F/A-18 (A1-F18AC-410-100)</li> <li>• Technical Manual Principles of Operation Environmental Control System F-14 (NAVAIR 01-F14AAA-2-2-2)</li> <li>• Technical Manual Organizational Maintenance, Environmental Control and Utility Systems E-2C (NAVAIR 01-E2AAA-2-12)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on procedures used to troubleshoot, remove, replace, clean, and inspect defog systems. You can also expect questions on procedures used to perform functional checks on defog systems. Questions may be in general nature of specific to a type of platform.

## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Mechanical Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain anti-icing systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to troubleshoot anti-icing systems</li> <li>• Procedures used to clean and inspect anti-icing systems</li> <li>• Procedures used to remove and replace anti-icing systems</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Principles of Operation, Testing, and Troubleshooting Utility Systems, E-6A (A1-E6AAA-490-100)</li> <li>• Technical Manual Principles of Operations Environmental Control System S-3 (NAVAIR 01-S3AAA-2-2.7)</li> <li>• Technical Manual Organizational Maintenance, Environmental Control and Utility Systems E-2C (NAVAIR 01-E2AAA-2-12)</li> <li>• Technical Manual Principles of Operations Environmental Control System F/A-18 (A1-F18AC-410-100)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on procedures used to troubleshoot, remove, replace, clean, and inspect anti-icing systems. You can also expect questions on procedures used to perform functional checks on anti-icing systems. Questions may be of general nature or specific to a type of platform.

## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Mechanical Maintenance</b>
<i>A skill</i> you are expected to perform from the General Skill Area above:	Maintain rain removal systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to troubleshoot rain removal systems</li> <li>• Procedures used to clean and inspect rain removal systems</li> <li>• Procedures used to remove and replace rain removal components</li> <li>• Procedures used to perform functional checks on rain removal systems</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Organizational Maintenance, Environmental Control Systems EA-6B (NAVAIR 01-85ADC-2-6)</li> <li>• Technical Manual Principles of Operations Environmental Control System F/A-18 (A1-F18AC-410-100)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about procedures used to troubleshoot, clean, inspect, remove, and replace rain removal systems. You can also expect questions about procedures used to perform functional checks on rain removal systems. Questions may be general in nature or specific to a type of platform.

## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Mechanical Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain windshield washer systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to troubleshoot windshield washer systems</li> <li>• Procedures used to remove and replace windshield washer systems</li> <li>• Procedures used to perform functional checks on windshield washer systems</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Organizational Maintenance, Environmental Control Systems EA-6B (NAVAIR 01-85ADC-2-6)</li> <li>• Technical Manual Principles of Operations Environmental Control System F/A-18 (A1-F18AC-410-100)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about procedures used to troubleshoot, remove, and replace windshield washer systems. Questions may be general in nature or specific to a type of platform.

## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Mechanical Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain aircraft fire extinguisher systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to troubleshoot aircraft fire extinguisher systems</li> <li>• Procedures used to clean and inspect components of aircraft fire extinguisher systems</li> <li>• Procedures used to remove and replace components of aircraft fire extinguisher systems</li> <li>• Procedures used to perform functional checks on aircraft fire extinguisher electrical systems</li> <li>• Procedures used to clean and inspect portable aircraft fire bottles</li> <li>• Procedures used to weigh portable fire bottles</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Principles of Operation, Testing, and Troubleshooting Utility Systems, E-6A (A1-E6AAA-490-100)</li> <li>• Technical Manual Principles of Operations Environmental Control System S-3, (NAVAIR 01-S3AAA-2-2.7)</li> <li>• Technical Manual Organizational Maintenance, Environmental Control and Utility Systems E-2C (NAVAIR 01-E2AAA-2-12)</li> <li>• Technical Manual Utility Systems, P-3 (NAVAIR 01-75PAA-2-2.4)</li> </ul>

<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about procedures used to troubleshoot, clean, inspect, remove, and replace fire extinguisher systems. You can also expect questions on procedures used to perform functional checks on fire extinguisher systems, cleaning and inspecting air bottles, and weighing portable fire bottles. Questions may be general in nature or specific to a type of platform.</p>
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## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Mechanical Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain clamshell canopy systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to troubleshoot clamshell canopy systems</li> <li>• Procedures used to clean, lubricate, and inspect components of clamshell canopy systems</li> <li>• Procedures used to remove and replace clamshell canopy and components</li> <li>• Procedures used to recharge components of pneumatic clamshell canopy systems</li> <li>• Procedures used to perform functional checks on components of clamshell canopy systems and canopies</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual, Organizational Maintenance Principles of Operation, Seat, Canopy, Survival Equipment, and Boarding Ladder, F/A-18 (A1-F18AE-120-100)</li> <li>• Technical Manual, Organizational Maintenance, Principles of Operation Escape Systems F-14 (NAVAIR 01-F14AAA-2-2-3)</li> <li>• Technical Manual, Organizational Maintenance, Escape and Survival Systems EA-6B (NAVAIR 01-85ADC-2-5)</li> <li>• Explosive Handling Personnel Qualification and Certification (QUAL/CERT) Program (COMNAVAIRPACINST/COMNAVAIRLANTINS T 8023 Series)</li> </ul>

<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about procedures used to troubleshoot, remove, replace, clean, inspect, and lubricate clamshell canopy systems. You can also expect questions about procedures used to perform functional checks on components of clamshell canopy systems and canopies and recharge components of pneumatic clamshell canopy systems. Questions may be general in nature or specific to a type of platform.</p>
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## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Mechanical Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain ejection seats
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to perform troubleshooting of ejection seats</li> <li>• Procedures used to clean, lubricate, and inspect ejection seats</li> <li>• Procedures used to remove and replace ejection seats and components</li> <li>• Procedures used to perform functional checks on ejection seats</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual, Organizational Maintenance Principles of Operation, Seat, Canopy, Survival Equipment, and Boarding Ladder, F/A-18 (A1-F18AE-120-100)</li> <li>• Technical Manual, Organizational Maintenance, Principles of Operation Escape Systems F-14 (NAVAIR 01-F14AAA-2-2-3)</li> <li>• Technical Manual, Organizational Maintenance, Escape and Survival Systems EA-6B (NAVAIR 01-85ADC-2-5)</li> <li>• Technical Manual, Organizational Maintenance with Illustrated Parts Breakdown, Aircraft Ejection Seat SJU-17(V)A Series (NAVAIR 13-1-36)</li> </ul>

<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about procedures used to troubleshoot, clean, inspect, lubricate, remove, and replace ejection seats and components. You can also expect questions about procedures used to perform functional checks on ejection seats. Questions may be general in nature or specific to a type of platform.</p>
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## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Ordinance Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain rocket motors and rocket initiators
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to clean and inspect rocket motors and initiators</li> <li>• Procedures used to remove and replace rocket motors and initiators</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual, General Use Cartridges and Cartridge Actuated Devices (CAD) For Aircraft and Unique Aircraft Systems (NAVAIR 11-100-1.1)</li> <li>• Technical Manual, Description, Preparation For Use, and Handling Instructions, Aircrew Escape Propulsion System (AEPS) Devices, (NAVAIR 11-85-1)</li> <li>• Technical Manual, Organizational Maintenance Principles of Operation, Seat, Canopy, Survival Equipment, and Boarding Ladder, F/A-18 (A1-F18AE-120-100)</li> <li>• Technical Manual, Organizational Maintenance, Principles of Operation Escape Systems F-14 (NAVAIR 01-F14AAA-2-2-3)</li> <li>• Technical Manual, Organizational Maintenance, Escape and Survival Systems EA-6B (NAVAIR 01-85ADC-2-5)</li> <li>• Technical Manual, Organizational Maintenance with Illustrated Parts Breakdown, Aircraft Ejection Seat SJU-17(V)A Series (NAVAIR 13-1-36)</li> <li>• Explosive Handling Personnel Qualification and Certification (QUAL/CERT) Program (COMNAVAIRPACINST/COMNAVAIRLANTINS T 8023 Series)</li> </ul>

<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about procedures used to clean, inspect, remove, and replace rocket motors and initiators. Questions may be general in nature or specific to a type of platform.</p>
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## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Ordinance Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain cartridge activated devices (CAD)
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to clean and inspect CADs</li> <li>• Procedures used to remove and replace CADs</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual, General Use Cartridges and Cartridge Actuated Devices (CAD) For Aircraft and Unique Aircraft Systems (NAVAIR 11-100-1.1)</li> <li>• Technical Manual, Organizational Maintenance Principles of Operation, Seat, Canopy, Survival Equipment, and Boarding Ladder, F/A-18 (A1-F18AE-120-100)</li> <li>• Technical Manual, Organizational Maintenance, Principles of Operation Escape Systems F-14 (NAVAIR 01-F14AAA-2-2-3)</li> <li>• Technical Manual, Organizational Maintenance, Escape and Survival Systems EA-6B (NAVAIR 01-85ADC-2-5)</li> <li>• Technical Manual, Organizational Maintenance with Illustrated Parts Breakdown, Aircraft Ejection Seat SJU-17(V)A Series (NAVAIR 13-1-36)</li> <li>• Explosive Handling Personnel Qualification and Certification (QUAL/CERT) Program (COMNAVAIRPACINST/COMNAVAIRLANTINST 8023 Series)</li> <li>• Technical Manual Organizational Maintenance, Principles of Operation Escape and Survival Systems, S-3 (NAVAIR 01-S3AAA-2-2.8)</li> </ul>

<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about procedures used to clean, inspect, remove, and replace cartridge-activated devices (CAD). Questions may be general in nature or specific to a type of platform.</p>
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## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Ordnance Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain shielded mild detonating cords (SMDC)
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to troubleshoot SMDCs</li> <li>• Procedures used to clean and inspect SMDCs</li> <li>• Procedures used to remove and replace SMDCs</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual, General Use Cartridges and Cartridge Actuated Devices (CAD) For Aircraft and Unique Aircraft Systems (NAVAIR 11-100-1.1)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about procedures used to troubleshoot, clean, inspect, remove, and replace shielded mild detonating cords (SMDC). Questions may be general in nature or specific to a type of platform.

## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Ordnance Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain flexible confined detonating cords (FCDC)
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to clean and inspect FCDCs</li> <li>• Procedures used to remove and replace FCDCs</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual, General Use Cartridges and Cartridge Actuated Devices (CAD) For Aircraft and Unique Aircraft Systems (NAVAIR 11-100-1.1)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about procedures used to clean, inspect, remove, and replace flexible confined detonating cords (FCDC). Questions may be general in nature or specific to a type of platform.



## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Ordinance Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain canopy jettison systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to arm and disarm canopy jettison systems</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual, Organizational Maintenance Principles of Operation, Seat, Canopy, Survival Equipment, and Boarding Ladder, F/A-18 (A1-F18AE-120-100)</li> <li>• Technical Manual, Organizational Maintenance, Principles of Operation Escape Systems F-14 (NAVAIR 01-F14AAA-2-2-3)</li> <li>• Technical Manual, Organizational Maintenance, Escape and Survival Systems EA-6B (NAVAIR 01-85ADC-2-5)</li> <li>• Technical Manual Organizational Maintenance, Principles of Operation Escape and Survival Systems, S-3 (NAVAIR 01-S3AAA-2-2.8)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about procedures used to arm and disarm canopy jettison systems. Questions may be general in nature or specific to a type of platform.

## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Oxygen, Nitrogen, and Liquid Oxygen Systems</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain gaseous oxygen systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to troubleshoot aircraft gaseous oxygen systems</li> <li>• Procedures used to purge aircraft gaseous oxygen systems</li> <li>• Procedures used to clean and inspect aircraft gaseous oxygen bottles</li> <li>• Procedures used to perform ground checks on oxygen systems</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Safety and Survival Equipment, P-3 (NAVAIR 01-75PAA-2-2.3)</li> <li>• Technical Manual Laboratory and Field Guide, Aviators Breathing Oxygen (ABO) Surveillance Program Laboratory Manual and Field Guide (NAVAIR A6-332AO-GYD-000)</li> <li>• Technical Manual Organizational Maintenance, Seat Survival Kits (Oxygen Hoses and Non-SKU-Series) (NAVAIR 13-1-6.3-1 and -2)</li> <li>• Technical Manual, Organizational Maintenance, Aviation-Crew Systems, Oxygen Equipment (NAVAIR 13-1-6.4)</li> <li>• The Naval Aviation Maintenance Program (NAMP) (OPNAVINST 4790.2 Series, Volumes I &amp; V)</li> </ul>

<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about procedures used to troubleshoot, purge, clean, and inspect aircraft gaseous oxygen bottles. You can also expect questions about procedures used to perform ground checks on oxygen systems. Questions may be general in nature or specific to a type of platform.</p>
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## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Oxygen, Nitrogen, and Liquid Oxygen Systems</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain oxygen regulators
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to remove and replace oxygen regulators</li> <li>• Procedures used to perform functional checks on oxygen regulators</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Principles of Operation, Testing, and Troubleshooting Utility Systems, E-6A (A1-E6AAA-490-100)</li> <li>• Technical Manual Principles of Operations Environmental Control System S-3 (NAVAIR 01-S3AAA-2-2.7)</li> <li>• Technical Manual Organizational Maintenance, Environmental Control and Utility Systems E-2C (NAVAIR 01-E2AAA-2-12)</li> <li>• Technical Manual Principles of Operations Environmental Control System F/A-18 (A1-F18AC-410-100)</li> <li>• Technical Manual Principles of Operation Environmental Control System F-14 (NAVAIR 01-F14AAA-2-2-2)</li> <li>• Technical Manual Laboratory and Field Guide, Aviators Breathing Oxygen (ABO) Surveillance Program Laboratory Manual and Field Guide (NAVAIR A6-332AO-GYD-000)</li> <li>• Technical Manual Organizational Maintenance, Seat Survival Kits (Oxygen Hoses and Non-SKU-Series) (NAVAIR 13-1-6.3-1 and -2)</li> <li>• Technical Manual, Organizational Maintenance; Aviation-Crew Systems, Oxygen Equipment (NAVAIR 13-1-6.4)</li> </ul>

	<ul style="list-style-type: none"> <li>• Technical Manual, Organizational Maintenance, Escape and Survival Systems EA-6B (NAVAIR 01-85ADC-2-5)</li> <li>• Technical Manual Safety and Survival Equipment, P-3 (NAVAIR 01-75PAA-2-2.3)</li> </ul>
<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about procedures used to remove and replace oxygen regulators and perform functional checks on oxygen regulators. Questions may be general in nature or specific to a type of platform.</p>

## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Oxygen, Nitrogen, and Liquid Oxygen Systems</b>
<i>A skill</i> you are expected to perform from the General Skill Area above:	Maintain gaseous oxygen portable bottles
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to troubleshoot portable oxygen bottles</li> <li>• Procedures used to clean and inspect portable oxygen bottles</li> <li>• Procedures used to fill and refill portable oxygen bottles</li> <li>• Procedures used to perform functional checks on portable oxygen bottles</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Principles of Operation, Testing, and Troubleshooting Utility Systems, E-6A (A1-E6AAA-490-100)</li> <li>• Technical Manual Organizational Maintenance, Environmental Control and Utility Systems E-2C (NAVAIR 01-E2AAA-2-12)</li> <li>• Technical Manual Laboratory and Field Guide, Aviators Breathing Oxygen (ABO) Surveillance Program Laboratory Manual and Field Guide (NAVAIR A6-332AO-GYD-000)</li> <li>• Technical Manual, Organizational Maintenance, Aviation-Crew Systems, Oxygen Equipment (NAVAIR 13-1-6.4)</li> <li>• Technical Manual, Organizational Maintenance Instructions; Safety and Survival (NAVAIR 01-75PAA-2-2.3)</li> </ul>

<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about procedures used to troubleshoot, clean, inspect, fill, and refill portable oxygen bottles. You can also expect questions about procedures used to perform functional checks on portable oxygen bottles. Questions may be general in nature or specific to a type of platform.</p>
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## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Oxygen, Nitrogen, and Liquid Oxygen Systems</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain onboard oxygen generating systems (OBOGS)
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to troubleshoot OBOGS</li> <li>• Procedures used to perform functional checks on OBOGS</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Principles of Operations Environmental Control System F/A-18, Work Package 018 00 (A1-F18AC-410-100)</li> <li>• Technical Manual Laboratory and Field Guide, Aviators Breathing Oxygen (ABO) Surveillance Program Laboratory Manual and Field Guide (NAVAIR A6-332AO-GYD-000)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about procedures used to troubleshoot OBOGS and perform functional checks on OBOGS. Questions may be general in nature or specific to a type of platform.



## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Oxygen, Nitrogen, and Liquid Oxygen Systems</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain liquid oxygen (LOX) systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to troubleshoot LOX systems</li> <li>• Procedures used to clean and inspect components of LOX systems</li> <li>• Procedures used to remove and replace components of LOX system</li> <li>• Procedures used to fill LOX systems</li> <li>• Procedures used to perform functional checks on LOX systems</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Principles of Operation, Testing, and Troubleshooting Utility Systems, E-6A (A1-E6AAA-490-100)</li> <li>• Technical Manual Organizational Maintenance, General Aircraft Information and Servicing, E-6A (A1-E6AAA-GAI-000)</li> <li>• Technical Manual Principles of Operations Environmental Control System S-3 (NAVAIR 01-S3AAA-2-2.7)</li> <li>• Technical Manual Organizational Maintenance, Environmental Control and Utility Systems E-2C (NAVAIR 01-E2AAA-2-12)</li> <li>• Technical Manual Principles of Operation Environmental Control System F-14 (NAVAIR 01-F14AAA-2-2-2)</li> <li>• Technical Manual Laboratory and Field Guide, Aviators Breathing Oxygen (ABO) Surveillance Program Laboratory Manual and Field Guide (NAVAIR A6-332AO-GYD-000)</li> </ul>

	<ul style="list-style-type: none"> <li>• Technical Manual, Organizational Maintenance, Escape and Survival Systems EA-6B (NAVAIR 01-85ADC-2-5)</li> <li>• Applicable platform MRCs</li> </ul>
<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about procedures used to troubleshoot, clean, inspect, remove, replace, and fill LOX systems. You can also expect questions about performing functional checks on LOX systems. Questions may be general in nature or specific to a type of platform.</p>

## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Oxygen, Nitrogen, and Liquid Oxygen Systems</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain liquid oxygen (LOX) converter
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to troubleshoot LOX converters</li> <li>• Procedures used to clean, inspect and fill LOX converters</li> <li>• Procedures used to remove and replace LOX converters</li> <li>• Procedures used to perform functional checks on LOX converters</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Principles of Operation, Testing, and Troubleshooting Utility Systems, E-6A (A1-E6AAA-490-100)</li> <li>• Technical Manual Principles of Operations Environmental Control System S-3 (NAVAIR 01-S3AAA-2-2.7)</li> <li>• Technical Manual Organizational Maintenance, Environmental Control and Utility Systems E-2C (NAVAIR 01-E2AAA-2-12)</li> <li>• Technical Manual Principles of Operation Environmental Control System F-14 (NAVAIR 01-F14AAA-2-2-2)</li> <li>• Technical Manual Laboratory and Field Guide, Aviators Breathing Oxygen (ABO) Surveillance Program Laboratory Manual and Field Guide (NAVAIR A6-332AO-GYD-000)</li> <li>• Technical Manual, Organizational Maintenance; Aviation-Crew Systems, Oxygen Equipment (NAVAIR 13-1-6.4)</li> <li>• Technical Manual, Organizational Maintenance, Escape and Survival Systems EA-6B (NAVAIR 01-85ADC-2-5)</li> </ul>

<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about procedures used to troubleshoot, clean, inspect, remove, replace, and fill LOX converters. You can also expect questions about performing functional checks on LOX converters. Questions may be general in nature or specific to a type of platform.</p>
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## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>General Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform aircraft pre-turnup inspections
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to perform aircraft pre-turnup inspections</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Per applicable platform MIMs and Instructions</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about procedures used to perform aircraft pre-turnup inspections. Questions may be general in nature or specific to a type of platform.

## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>General Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform aircraft inspections
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to perform calendar inspections</li> <li>• Procedures used to perform phase inspections</li> <li>• Procedures used to perform daily inspections</li> <li>• Procedures used to perform turnaround inspections</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Per applicable platform MRCs</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about procedures used to perform calendar inspections, phase inspections, daily inspections, and turnaround inspections. Questions may be general in nature or specific to a type of platform.

## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Tool Control</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain tool control
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to review tool inventories</li> <li>• Procedures used to update tool inventories</li> <li>• Procedures used to engrave identification marks on tools</li> <li>• Procedures used to inspect tool containers for missing, damaged, or broken tools</li> <li>• Information needed for preparing broken and missing tool reports</li> <li>• Requirements for reviewing broken and missing tool reports</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Aviation Maintenance Ratings (NAVEDTRA 12017)</li> <li>• The Naval Aviation Maintenance Program (NAMP) (OPNAVINST 4790.2 Series, Volumes I, III, &amp; V)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about procedures used to review and update tool control inventories, and inspect tool containers. You can also expect questions about the kind of information needed for preparing broken and missing tool reports and the requirements for reviewing broken and missing tool reports. Questions may be general in nature or specific to a type of platform.

## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Hazardous Material Control and Handling</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain hazardous materials (HAZMAT)
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures for reviewing the HAZMAT user's guide</li> <li>• Procedures for reviewing HAZMAT inventories</li> <li>• Procedures for reviewing material safety data sheets (MSDS)</li> <li>• Procedures for updating HAZMAT inventories</li> <li>• Procedures for inspecting HAZMAT storage areas</li> <li>• Procedures for disposing used absorbents (speedy dry, rags, and so forth)</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Technical Manual Organizational, Intermediate, and Depot Maintenance, Preservation of Naval Aircraft, Chapter 1 (NAVAIR 15-01-500)</li> <li>• Navy Occupational Safety and Health (NAVOSH) Program Manual For Forces Afloat, (OPNAVINST 5100.19)</li> <li>• The Naval Aviation Maintenance Program (NAMP) (OPNAVINST 4790.2 Series, Volumes I &amp; V)</li> <li>• Applicable maintenance instruction manual (MIMs)</li> <li>• Local hazardous material (HAZMAT) instructions</li> </ul>



<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about reviewing the HAZMAT user's guide, reviewing HAZMAT inventories, reviewing material safety data sheets (MSDS), updating HAZMAT inventories, inspecting HAZMAT storage areas, and disposing of used absorbents (speedy dry, rags, and so forth). Questions may be of general nature or specific to a type of HAZMAT. In addition, you can expect questions on proper labeling of HAZMAT.</p>
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## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Quality Assurance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Monitor quality assurance programs
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to monitor the Corrosion Control Program</li> <li>• Procedures used to monitor the Tool Control Program</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• The Naval Aviation Maintenance Program (NAMP) (OPNAVINST 4790.2 Series, Volumes I &amp; V)</li> <li>• Local instructions</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about procedures used to monitor the Aviation Breathing Oxygen (ABO) Program, the Corrosion Control Program, and the Tool Control Program. Questions may be general in nature or specific to a type of platform.

## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Quality Assurance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform aircraft inspections (other than daily, phase, and calendar inspections)
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to perform conditional, special, and acceptance and transfer inspections</li> <li>• Procedures used to perform support equipment acceptance and transfer inspections</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• The Naval Aviation Maintenance Program (NAMP) (OPNAVINST 4790.2 Series, Volumes I &amp; V)</li> <li>• Local instructions</li> <li>• Applicable platform MRCs</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about procedures used to perform conditional, special, and acceptance and transfer inspections. You can also expect questions about procedures used to perform support equipment acceptance and transfer inspections. Questions may be general in nature or specific to a type of platform.

## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Quality Assurance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Schedule ejection seat check out
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to schedule ejection seat check out dates</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• The Naval Aviation Maintenance Program (NAMP) (OPNAVINST 4790.2 Series, Volumes I &amp; V)</li> <li>• Local instructions</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about procedures used to perform seat check out. Questions may be general in nature or specific to a type of platform.

## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Mechanical Administration</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain maintenance reports
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures for updating visual information display system (VIDS) and Naval Aviation Logistics Command Management Information System (NALCOMIS) status boards</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Aviation Maintenance Ratings (NAVEDTRA 12017)</li> <li>• The Naval Aviation Maintenance Program (NAMP) (OPNAVINST 4790.2 Series, Volumes I &amp; III)</li> <li>• Local instructions</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about and updating visual information display system (VIDS) and Naval Aviation Logistics Command Management Information System (NALCOMIS) status boards. Questions may be general in nature or specific to a type of platform.

## Advancement Handbook for AME3

General AME <i>Skill Area</i>	<b>Corrosion Control</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain aircraft corrosion
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to perform aircraft corrosion inspections</li> <li>• Procedures used to remove, treat and prevent corrosion</li> <li>• Procedures used to wash aircraft</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Aviation Maintenance Ratings (NAVEDTRA 12017)</li> <li>• Technical Manual Aircraft Weapons Systems Cleaning and Corrosion Control (NAVAIR 01-1A-509)</li> <li>• Technical Manual Organizational, Intermediate, and Depot Maintenance, Preservation of Naval Aircraft (NAVAIR 15-01-500)</li> <li>• Technical Manual, Organizational/Unit and Intermediate Maintenance, Avionics Cleaning and Corrosion Prevention/Control (NAVAIR 16-1-540)</li> <li>• Navy Occupational Safety and Health (NAVOSH) Program Manual For Forces Afloat, (OPNAVINST 5100.23C)</li> <li>• The Naval Aviation Maintenance Program (NAMP) (OPNAVINST 4790.2 Series, Volumes I &amp; V)</li> </ul>

*Exam Expectations.* These are subject areas you should know to help you answer exam questions correctly:

You can expect questions about the fundamentals of aircraft corrosion, aircraft corrosion prevention, and aircraft preservation, to include inspecting and identifying types of corrosion on naval aircraft. You can also expect questions on removing corrosion with the aid of portable or stationary dry hone machines versus chemical means. Additional questions may cover corrosion prone areas and levels of preservation applied to naval aircraft. Questions may be of general nature or specific to a type of platform.





## Part 2

### Advancement Handbook for AME2

## Advancement Handbook for AME2

General AME <i>Skill Area</i>	<b>Quality Assurance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform quality assurance (QA) inspections
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures to perform collateral duty inspections (CDI)</li> <li>• Procedures to perform in-process QA inspections</li> <li>• Procedures to perform final QA inspections</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Aviation Maintenance Ratings (NAVEDTRA 12017)</li> <li>• The Naval Aviation Maintenance Program (NAMP) (OPNAVINST 4790.2 Series, Volumes I &amp; V)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing collateral duty inspections, in-process QA inspections, and final quality assurance inspections. Questions may be of general nature or specific to a type of platform.

## Advancement Handbook for AME2

General AME <i>Skill Area</i>	<b>Mechanical Administration</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Review aircraft discrepancy books (ADB)
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"><li>• Procedures for reviewing ADBs</li></ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"><li>• Naval Aviation Maintenance Program (NAMP) (OPNAVINST 4790.2 Series, Volume I)</li></ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about reviewing ADBs. Questions may be of general nature or specific to a type of platform.

## Advancement Handbook for AME2

General AME <i>Skill Area</i>	<b>Mechanical Administration</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Review aircraft history records
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures for reviewing aircraft history records</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Naval Aviation Maintenance Program (NAMP) (OPNAVINST 4790.2 Series, Volume I)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about procedures used to review aircraft history records. Questions may be of general nature or specific to a type of platform.

## Advancement Handbook for AME2

General AME <i>Skill Area</i>	<b>Mechanical Administration</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain maintenance reports
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to draft quality deficiency reports (QDR)</li> <li>• Procedures for reviewing and correcting maintenance data reports (MDR)</li> <li>• Procedures for reviewing daily audit reports (DAR)</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• The Naval Aviation Maintenance Program (NAMP) (OPNAVINST 4790.2 Series, Volumes I &amp; V)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about procedures used to draft and review QDRs, MDRs, DARs. Questions may be of general nature or specific to a type of platform.



## Part 3

### Advancement Handbook for AME1

## Advancement Handbook for AME1

General AME <i>Skill Area</i>	<b>Quality Assurance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform aircraft zonal inspections
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"><li>• Procedures to perform aircraft zonal inspections</li></ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"><li>• Aviation Maintenance Ratings (NAVEDTRA 12017)</li><li>• Naval Aviation Maintenance Program (NAMP) (OPNAVINST 4790.2 Series, Volume I)</li></ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing aircraft zonal inspections. Questions may be of general nature or specific to a type of platform.



## Advancement Handbook for AME1

General AME <i>Skill Area</i>	<b>Quality Assurance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Monitor quality assurance programs
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures used to monitor the Aviation Breathing Oxygen (ABO) Program</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• The Naval Aviation Maintenance Program (NAMP) (OPNAVINST 4790.2 Series, Volumes V)</li> <li>• Local instructions</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about procedures used to monitor the Aviation Breathing Oxygen (ABO) Program.

## Advancement Handbook for AME1

General AME <i>Skill Area</i>	<b>Quality Assurance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform work center audits
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures for performing work center audits</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Aviation Maintenance Ratings (NAVEDTRA 12017)</li> <li>• The Naval Aviation Maintenance Program (NAMP) (OPNAVINST 4790.2 Series, Volumes I &amp; V)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about procedures for performing work center audits. Questions may be of general nature or specific to a type of platform.

## Advancement Handbook for AME1

General AME <i>Skill Area</i>	<b>Mechanical Administration</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Manage work center reports and programs
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures for reviewing aircraft status reports</li> <li>• Procedures for preparing support equipment misuse/abuse reports</li> <li>• Procedures for reviewing equipment history records</li> <li>• Procedures for drafting explosive mishap reports (EMR)</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Aviation Maintenance Ratings (NAVEDTRA 12017)</li> <li>• The Naval Aviation Maintenance Program (NAMP) (OPNAVINST 4790.2 Series, Volumes I &amp; V)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about reviewing aircraft status reports, preparing support equipment misuse/abuse reports, reviewing equipment history records and drafting explosive mishap reports. Questions may be of general nature or specific to a type of platform.



## Part 4

### Advancement Handbook for AMEC

## Advancement Handbook for AMEC

General AME <i>Skill Area</i>	<b>Maintenance Administration</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Manage maintenance control procedures
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Debrief flight crews</li> <li>• Procedures to assign and release aircraft to missions</li> <li>• Review equipment status reports</li> <li>• Review naval aircraft flight record subsystem (NAVFLIRS) forms</li> <li>• Draft aircraft status reports</li> <li>• Review aircraft history records</li> <li>• Review equipment history records</li> <li>• Evaluate status boards</li> <li>• Draft aircraft maintenance schedules</li> <li>• Update aircraft maintenance schedules</li> <li>• Review aircraft periodic maintenance information cards (PMIC)</li> <li>• Input Naval Aviation Logistics Command Management Information System (NALCOMIS) data</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Aviation Maintenance Ratings (NAVEDTRA 12017)</li> <li>• The Naval Aviation Maintenance Program (NAMP) (OPNAVINST 4790.2 Series, Volumes I &amp; V)</li> <li>• Local instructions and policies</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about assigning and releasing aircraft to missions, reviewing equipment status reports, updating aircraft maintenance schedules, reviewing PMICs, inputting NALCOMIS data, and NAVFLIRS forms. Questions may be of general nature or specific to a type of platform.

## Appendix 1

### References Used in This Advancement Handbook

<b>Rating</b>	<b>Short Title</b>	<b>Long Title</b>	<b>Chapters/ Paragraphs</b>	<b>Stocking Point</b>
<b>AME3</b>	NAVEDTRA 12017	Aviation Maintenance Ratings	All	Note 1
	A1-E6AAA-410-100	Technical Manual Principles of Operation, Testing, and Troubleshooting Environmental Control Systems, E-6A	All	Note 2
	A1-E6AAA-490-100	Technical Manual Principles of Operation, Testing, and Troubleshooting Utility Systems, E-6A	WPs 003, 006, 008 through 010 and 016 00	Note 2
	NAVAIR 01-85ADC-2-6	Technical Manual Organizational Maintenance Environmental Control Systems EA-6B	WPs 003 through 009, 011 and 012	Note 2
	NAVAIR 01-S3AAA-2-2.7	Technical Manual Principles of Operations Environmental Control System S-3	All	Note 2
	NAVAIR 01-S3AAA-2-2.8	Technical Manual Principles of Operation Escape and Survival Systems S-3	All	Note 2
	NAVAIR 01-E2AAA-2-12	Technical Manual Organizational Maintenance, Environmental Control and Utility Systems E-2C	All	Note 2

<b>Rating</b>	<b>Short Title</b>	<b>Long Title</b>	<b>Chapters/ Paragraphs</b>	<b>Stocking Point</b>
<b>AME3 (Cont)</b>	A1-F18AC-410-100	Technical Manual Principles of Operations Environmental Control System F/A-18	All	Note 2
	NAVAIR 01-F14AAA-2-2-2	Technical Manual Principles of Operation Environmental Control System F-14	All	Note 2
	NAVAIR 01-75PAA-2-2.4	Technical Manual Utility Systems, P-3	WPs 003 through 008	Note 2
	NAVAIR 00-25-100	Technical Manual Naval Air Systems Command Technical Manual Program	All	Note 2
	NAVAIR A6-332AO-GYD-000	Technical Manual Laboratory and Field Guide, Aviators Breathing Oxygen(ABO) Surveillance Program Laboratory Manual and Field Guide	All	Note 2
	NAVAIR 01-1A-509	Technical Manual Aircraft Weapons Systems Cleaning and Corrosion Control	Be familiar with the contents of this manual	Note 2
	NAVAIR 15-01-500	Technical Manual Organizational, Intermediate, and Depot Maintenance, Preservation of Naval Aircraft	Be familiar with Org. Preservation	Note 2
	NAVAIR 13-1-6.3-1 & 3-2	Technical Manual Organizational Maintenance, Seat Survival Kits (Oxygen Hoses and Non-SKU-Series)	Chapter 10, (3-1), Chapters 3 & 4 (3-2)	Note 2



<b>Rating</b>	<b>Short Title</b>	<b>Long Title</b>	<b>Chapters/ Paragraphs</b>	<b>Stocking Point</b>
<b>AME3 (Cont)</b>	NAVAIR 13-1-6.4	Technical Manual, Organizational Maintenance; Aviation-Crew Systems, Oxygen Equipment	Chapters 3 and 9 through 13	Note 2
	NAVAIR 16-1-540	Technical Manual, Organizational/Unit and Intermediate Maintenance, Avionics Cleaning and Corrosion Prevention/Control	Be familiar with corrosion treatment and prevention of Avionics Equipment	Note 2
	NAVAIR 11-100-1.1	Technical Manual, General Use Cartridges and Cartridge Actuated Devices (CADs) For Aircraft and Unique Aircraft Systems	Be familiar with Safety Procedures, Handling and Disposal	Note 2
	NAVAIR 11-85-1	Technical Manual, Description, Preparation For Use, and Handling Instructions, Aircrew Escape Propulsion System (AEPS) Devices	Be familiar with Safety Procedures and AEPS Handling	Note 2
	A1-F18AE-120-100	Technical Manual, Organizational Maintenance Principles of Operation, Seat, Canopy, Survival Equipment, and Boarding Ladder, F/A-18	WPs 003 through 010	Note 2

<b>Rating</b>	<b>Short Title</b>	<b>Long Title</b>	<b>Chapters/ Paragraphs</b>	<b>Stocking Point</b>
<b>AME3 (Cont)</b>	NAVAIR 01-F14AAA-2-2-3	Technical Manual, Organizational Maintenance, Principles of Operation Escape Systems F-14	WP 003	Note 2
	NAVAIR 01-85ADC-2-5	Technical Manual, Organizational Maintenance, Escape and Survival Systems EA-6B	WP 003 through 011	Note 2
	NAVAIR 13-1-36	Technical Manual, Organizational Maintenance with Illustrated Parts Breakdown, Aircraft Ejection Seat SJU-17(V)A Series	WP 003	Note 2
	OPNAVINST 5100.19 Series VOL I & II	Navy Occupational Safety and Health (NAVOSH) Program Manual For Forces Afloat	Be familiar with the contents of this manual	Note 4
	COMNAVAIRPAC/ COMNAVAIRLANT INST 8023 Series	Explosive Handling Personnel Qualification and Certification (QUAL/CERT) Program	All	Note 2
	OPNAVINST 4790.2 Series, Volume I	The Naval Aviation Maintenance Program (NAMP)	Chapters 1, 2, 4, 5, 7, 8, 10 through 16, 18 and 20	Note 3
	OPNAVINST 4790.2 Series, Volume III	The Naval Aviation Maintenance Program (NAMP)	Chapters 3, 5, 6, 7 and Appendices B through R	Note 3
	OPNAVINST 4790.2 Series, Volume V	The Naval Aviation Maintenance Program (NAMP)	Chapters 2, 5, 8, 10 through 17 and 20	Note 3

<b>Rating</b>	<b>Short Title</b>	<b>Long Title</b>	<b>Chapters/ Paragraphs</b>	<b>Stocking Point</b>
<b>AME3 (Cont)</b>	NAVAIR 01-75PAA-2-2.3	Technical Manual Safety and Survival Equipment	WPs 003 through 008	Note 2
<b>AME2</b>	NAVEDTRA 12017	Aviation Maintenance Ratings	All	Note 1
	OPNAVINST 4790.2 Series, Volume I	The Naval Aviation Maintenance Program (NAMP)	See AME3 list	Note 3
	OPNAVINST 4790.2 Series, Volume V	The Naval Aviation Maintenance Program (NAMP)	Chapters 5, 6 and 8 through 22	Note 3
<b>AME1</b>	NAVEDTRA 12017	Aviation Maintenance Ratings	All	Note 1
	OPNAVINST 4790.2 Series, Volume I	The Naval Aviation Maintenance Program (NAMP)	See AME2 list	Note 3
	OPNAVINST 4790.2 Series, Volume V	The Naval Aviation Maintenance Program (NAMP)	All	Note 3
<b>AMEC</b>	NAVEDTRA 12017	Aviation Maintenance Ratings	All	Note 1
	OPNAVINST 4790.2 Series, Volumes 1 & V	The Naval Aviation Maintenance Program (NAMP)	See AME3 & AME2 list	Note 3

**LEGEND:**

Note 1 — INTERNET - <http://www.advancement.cnet.navy.mil/>

Note 2 — INTERNET - <http://www.natec.navy.mil/> or contact your Command Central Technical Publications Librarian.

Note 3 — Fleet Publications Library CD-ROM  
Letter request to:  
COMMANDER  
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Patuxent River, MD 20670-1626

Note 4 — INTERNET - <http://neds.nebt.daps.mil/>